

REMARKS

This application, as amended herein, contains claims 1-10 and newly added claims 11 - 36.

Claims 1, 2, and 5 - 10 were rejected under 35 U.S.C. 103(a) as being obvious over Naoi in view of Kumada. Claims 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Naoi and Kumada, further in view of Dermer et al. Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Naoi and Kumada, further in view of Marks. These rejections are respectfully traversed.

Applicant's invention, as set forth in claim 1, is directed to a system for evaluating one or more color scales comprising an input interface that receives one or more of a collection of candidate color scales, and one or more test patterns; one or more color output devices; and an evaluation process that applies the candidate color scales to the test pattern to determine which of the candidate color scales can be used to create color-coded images on the color output device without violating the condition of perceptual ordering by more than a tolerance.

The combination of Naoi and Kumada does not teach or suggest Applicant's invention as set forth in claim 1. Applicant's invention provides a simple system for choosing which ones of a plurality of candidate color scales best represents perceptual ordering of a test image. Reference to column 8, lines 5-29, and in particular column 8, lines 7 - 10 of Naoi clearly shows that in the system of Naoi, it

is necessary for an operator to selectively set density adjustment values for a plurality of color components of the input color image. In sharp contrast to what is disclosed in Naoi, in accordance with Applicant's invention, it is an entire color scale that is selected. No adjustment, and no complex equipment to permit such an adjustment, is necessary. The user of Applicant's system merely needs to choose which ones of the candidate color scales, from a group of such entire scales, provide the best output images. The selected or top ranked color scales that do not violate the condition of perceptual ordering by more than a tolerance, may then be used for display or printing.

There is nothing in Naoi or Kumada, however they are combined, to suggest such a system. It is therefore submitted that claim 1 is directed to patentable subject matter.

Independent method claim 8, computer program product claim 9 and system claim 10 have been amended in a manner analogous to independent claim 1. For the reasons set forth above with respect to claim 1, it is respectfully submitted that claims 8, 9 and 10 are also directed to patentable subject matter.

Claim 3, which depends from claim 1, is directed to a system further comprising a rating process used to evaluate the color scales as determined by perceptual ordering of the test pattern by the user where the respective color scale is used to render the test pattern to the user. This

claim is not rendered obvious by the combination of Naoi and Kumada and Dermer et al. Dermer et al. is directed to a method for determining color boundaries for correcting for plate misregistration in color printing. The ranking methods pointed to by the Examiner is used merely to determine the adequacy of automatic trap specification. This in turn has implications for correcting for plate misregistration. It has nothing whatsoever to do with selecting a candidate color scale, as set forth in claim 1, from which claim 3 depends. It is thus submitted that the prior art does not teach or suggest claim 3, and that claim 3 is directed to patentable subject matter.

The newly added claims serve to further define Applicant's invention. While discussed below principally with respect to claims 11 - 19, which depend either directly or indirectly from claim 1, these remarks also apply to selected ones of claims 20 - 27, which depend either directly or indirectly from method claim 8, and selected ones of claims 28 - 34, which depend directly or indirectly from computer program product claim 9.

Newly added claim 11 (and corresponding method and computer program product claims 20 and 28) recites that the collection of candidate color scales are representative of a variety of different viewing setups. None of the prior art teaches or suggests this approach.

Newly added claim 12 (and corresponding method and computer program product claims 21 and 29), recites that the one or more test pattern is representative of a human

face. This preferred embodiment of Applicant's invention is particularly advantageous in that, as noted in the specification, on page 5 lines 7 - 8, the human visual system is particularly suited for the detection and identification of human faces. Thus, deviations from a perceptually ordered image are easily recognized. The prior art does not teach or suggest this approach.

Newly added claim 13 (and corresponding method and computer program product claims 22 and 30) states that the system further comprises a display for displaying to a user of the system the test image with a series of the candidate color scales applied to the test image to form successive rating images; and means for receiving from the user a rating for each of the successive rating images. The prior art makes no such provisions.

Newly added claim 14 (and corresponding method and computer program product claims 23 and 31) recites that the rating is representative of how well the user perceives each of the successive rating images as not violating the condition of perceptual ordering. Again, there is no such teaching or suggestion in the art of record.

Newly added claim 15 (and corresponding method and computer program product claims 24 and 32) recites that the system further comprises means for sorting the ratings into a plurality of classes. The prior art defines no such classes. Newly added claim 16 (and corresponding method and computer program product claims 25 and 33) recites that the system further comprises means for determining how many of

the rating images are assigned to each of the classes. No such determination is made in the prior art. Newly added claim 17 (and corresponding method and computer program product claims 26 and 34) recites that the classes include: completely normal, reasonably normal, undecided, somewhat abnormal, and extremely abnormal. No such classes are defined in the prior art. In view of the above, it is respectfully submitted that claims 15 - 17, 24 - 26 and 32 34 are directed to patentable subject matter.

Newly added claim 18 (and corresponding method and computer program product claims 27 and 35) recites that the system further comprises means for alerting a user of the system if none of the rating images are assigned to the classes of completely normal or reasonably normal. Since none of the prior art teaches or suggests such classes, it is submitted that claims 18, 27 and 35 are patentable over the prior art.

Finally, newly added claim 19 (and corresponding computer program product claim 36) recites, the combination of claim 1, with a collection of candidate color scales for use by the system. As noted above with respect to claim 1, such preexisting color scales are not taught or suggested by the art of record.

The remaining claims depend from claim 1. For the reasons set forth above with respect to claim 1, it is respectfully submitted that the remaining claims are also directed to patentable subject matter.

A revised version of Fig. 1, which adds reference numeral 120 is attached herewith. Thus, an obvious omission is being corrected.

In view of the allowable nature of the subject matter of all of the claims, if the Examiner cannot issue an immediate allowance, it is respectfully requested that he contact the undersigned to resolve any remaining issues.

Please charge the fee of \$288 for 16 additional added dependent claims (above 20 total claims) to deposit account no. 50-0510. A duplicate of this last page is enclosed.

Respectfully submitted,

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Date

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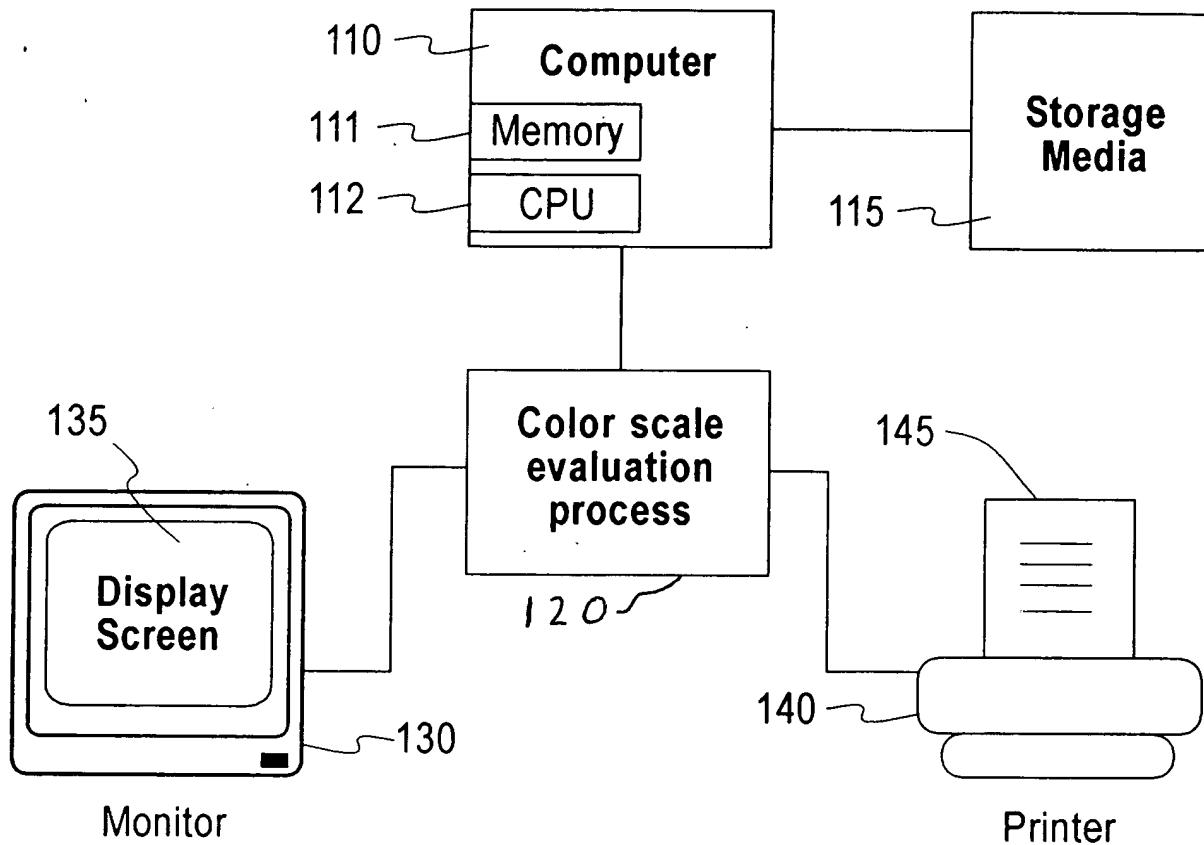


Fig. 1